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EARNINGS OF CANADIANS

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Earnings of Canadians

C F O C U S O N CANADA



Focus on Canada

Earnings of Canadians

By: John Gartley

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Preface

Focus on Canada is a series of publications portraying the people of Canada. The portrait is drawn through the analysis of the data collected by the 1991 Census of Population and Housing. Each publication examines a specific issue and provides a demographic, social, cultural and economic perspective.

The authors of this series have taken special care to make their analysis informative and easy to read. They make use of descriptive graphs and data tables to more clearly illustrate the information. Often the results are compared to previous censuses, showing how Canada and Canadians have changed over time.

The publications were prepared by analysts at Statistics Canada, and reviewed by peers from within the Agency as well as experts from external organizations. I would like to extend my thanks to all the contributors for their role in producing this useful and interesting publication.

I would like to express my appreciation to the millions of Canadians who completed their questionnaires on June 4, 1991. Statistics Canada is very pleased to be able to now provide this summary of the results. I hope you enjoy reading this study – and the others in this series.

Ivan P. Fellegi
Chief Statistician of Canada

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Highlights

- In 1990, 77.8% of the total income of all Canadians came from paid employment. Compared with 81% for men, 72% of the total income of women came from employment.
- Average earnings for men who worked at any time in 1990 were \$30,253, while women earned an average of \$18,046. Men who worked full year, full time had average earnings of \$38,648, while women in the same category had average earnings of \$26,033.
- The average earnings of women who worked full year, full time were 67.4% of those of men with similar work activity. Married women working full year, full time earned 63.1% of the average for married men, while single women earned 91.3% of the average for single men in 1990.
- The gap between the earnings of married men and women who worked full year, full time in 1990 widened with age. The difference in earnings was largest among those 55 to 64 years of age where the ratio of women's to men's earnings was 57.2%. In contrast, the gap between the earnings of single men and women narrowed with age.
- Possession of a university degree was equated with earning levels substantially higher than those for other levels of education. In 1990, men and women with university degrees had average earnings of \$48,848 and \$29,132, respectively, over twice the average earnings of those with less than Grade 9 education.
- Among men and women with university degrees who worked full year, full time in 1990, those with degrees in Health professions, sciences and technologies had the highest average earnings while those with degrees in Fine and applied arts had the lowest.
- Between 1970 and 1980, inflation-adjusted average earnings of Canadians who worked full year, full time increased by 18.5%, from \$28,362 to \$33,614. Over the next five years, average earnings declined marginally, by 0.8% to \$33,332 in 1985. Over the last half of the 1980s, average earnings of full-year, full-time workers rose by 1.1%, to \$33,714 in 1990.

- After adjustment for inflation, average earnings of men who worked full year, full time increased by 20.2% between 1970 and 1980, from \$31,730 to \$38,128. Average earnings for men declined slightly between 1980 and 1985 and then rose slightly between 1985 and 1990. At \$38,648 in 1990, average earnings for men who worked full year, full time, were 1.4% higher than in 1980.
- The average earnings of women who worked full year, full time, increased by 27.9% between 1970 and 1980, from \$19,015 to \$24,321. With an increase of 2.3% between 1980 and 1985, followed by an increase of 4.6% between 1985 and 1990, average earnings of women who worked full year, full time were \$26,033 in 1990, 7.0% higher than in 1980.
- All provinces shared in the growth of overall earnings during the 1970s, but in differing degrees. Average earnings declined in most provinces and territories between 1980 and 1985, although Ontario (1.6%), Nova Scotia (1.9%) and the Northwest Territories (5.9%) registered increases. Between 1985 and 1990, all provinces and territories saw increases in average earnings except Saskatchewan and Alberta, where average employment incomes of individuals declined.

Introduction

Canadians endured one recession during the early 1980s, and at the time the last census was taken in June 1991, were in the midst of another. The 1981-82 recession resulted in, among other things, decreased levels of employment and lower overall employment income or earnings. Data from the 1986 Census showed that the average real earnings of Canadians in 1985 were still below their 1980 level.

Between 1985 and 1990, Canada continued to recover from the impact of the earlier recession, as levels of employment rose. But how did earnings of individual Canadians fare over the last half of the 1980s? The purpose of this study is to provide the most recent data from the 1991 Census on the 1990 earnings of men and women, describe the differences in their earnings by demographic and economic characteristics and, where appropriate, highlight the changes that occurred since the previous censuses of 1986, 1981 and 1971.

Chapter 1 begins by presenting the relationship between earnings and total income in 1990. It also presents basic statistics on the number and demographic characteristics of earners in 1990. Chapter 2 follows with a presentation of average earnings of men and women in 1990 by demographic and economic characteristics. Chapter 3 focuses on the earnings distributions in 1990 of all workers and full-year, full-time workers. Chapter 4 concludes the study by examining the changes that have occurred since 1970 in average earnings across the regions, by sex and work activity, and in the distributions of men and women by size of earnings.

The data used in this report are from the Census of Canada taken in 1971, 1981, 1986 and 1991. Earnings data for the years prior to 1990 are expressed in constant (1990) dollars; that is, they have been adjusted for inflation as measured by changes in the Consumer Price Index. Where appropriate, references have been made to earnings data from the annual Survey of Consumer Finances.

Chapter 1

Earnings: Importance and Incidence

Income level and standard of living generally go hand in hand – the higher the income, the better the standard of living. Individuals receive income from many sources, including employment, investments, government transfer payments (such as Old Age Security pension, Unemployment Insurance benefits and social welfare payments) and retirement pensions. However, it is earnings from employment that generate, by far, the largest proportion of the average Canadian's total income. Employment income, or earnings, consists of wages and salaries and net income from farm and non-farm self-employment.

Importance of Earnings

In 1990, the aggregate income of Canadians from all sources amounted to \$466 billion. As shown in **Table 1.1**, employment income, or earnings, comprised the largest proportion of total income, amounting to \$363 billion, or 77.8% of the total income of individuals in that year. The remaining 22.2% of income was received as transfer payments from governments, investment income, retirement pensions or from other miscellaneous sources. The largest single component of employment income is wages and salaries. It comprised 92.6% of all earnings and, alone, accounted for 72% of all income. Net income from non-farm self-employment activities accounted for 5% of total income, while farm self-employment income accounted for less than 1%.

Chart 1.1 shows the percentage composition of the total income of men and women. In 1990, earnings accounted for 81% of the total income of men compared with 72% for women. Much of the difference in the proportion of income derived from earnings disappears if only the working population is considered. In 1990, 90.5% of the total income of working men and 89.4% of that of working women consisted of earnings.

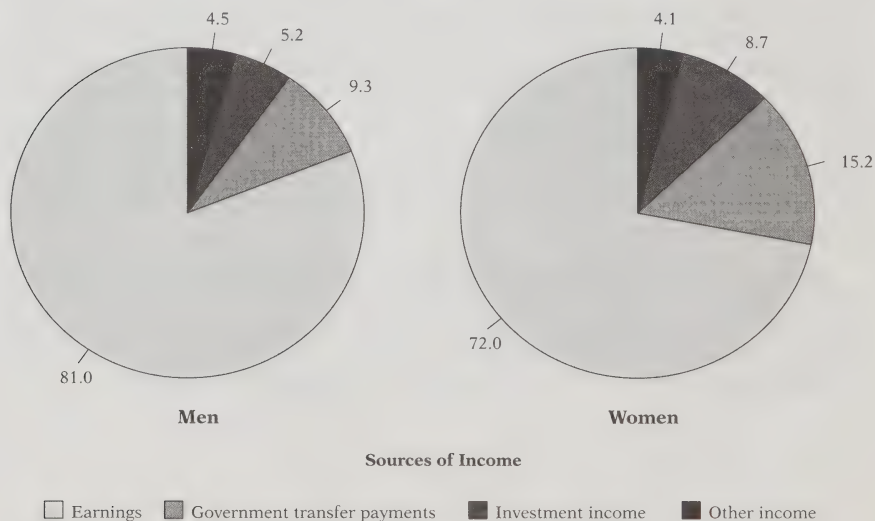
Table 1.1
Composition of Total Income of Individuals by Source, 1990

Sources of income	Aggregate income	
	\$ millions	Percentage
Employment income	362,625.9	77.8
Wages and salaries	335,897.4	72.0
Net non-farm self-employment	23,290.4	5.0
Net farm self-employment	3,438.2	0.7
Government transfer payments	53,256.3	11.4
Investment income	30,081.7	6.5
Other income	20,261.7	4.3
Total income	466,225.5	100.0

Note: Estimates may not add to total due to rounding.

Source: 1991 Census of Canada.

Chart 1.1
Percentage Composition of Total Income, 1990



Source: 1991 Census of Canada.

Incidence of Earnings

The 1991 Census results indicate that of the 21.3 million persons 15 years and over, 14.5 million, or almost 68%, worked and reported earnings in 1990. Although the population 15 years and over was almost equally divided between the sexes, more men (7.9 million) than women (6.6 million) reported earnings in 1990. Thus, 75.9% of men reported earnings in 1990 compared with 60.3% of women, a difference of nearly 16 percentage points.

The data in the lower panel of **Table 1.2** provide the distributions of these earners by age. Although the shape of the distributions of female and male earners by age is quite similar, there is a noticeable difference in the proportion of the female work force in the younger age groups. Compared with 70.5% of working men, 74.8% of female earners are under the age of 45. Overall, the average age of female workers in 1990 was 36.2 years, compared with 37.6 for men.

Chart 1.2 presents the incidence of employment income among men and women by five-year age groups. As expected, the incidence of earnings is lowest among those of retirement age (65 years and over), where less than 1 in 10 individuals reported earnings, followed by the pre-retirement age group (60 to 64 years). The incidence is also low among the very young. Just over one of every two persons 15 to 19 years of age had some form of earnings in 1990.

For most working-age men (those under the age of 65) the incidence of earnings, starting from a low of 55.8% for the 15 to 19 year age group, rises dramatically to 86.8% among those 20 to 24 years of age. It remains close to 90% for those between the ages of 25 to 54 and then declines to 79% amongst those 55 to 59 years of age and to 58% in the 60 to 64 year age group. The highest proportion of men with earnings, at 92.3%, is found in the 35 to 39 year age group.

The pattern of incidence of earnings by age for women differs from that of men in several respects. Not only are the proportions of women with earnings lower than those for men in all age groups, but the age group in which we find the largest proportion of women with earnings is much younger. Compared with the 35 to 39 year age group for men, the incidence of earnings for women peaks in the 20 to 24 year age group, at 81.6%. Another notable difference between the incidence of earnings is found in the 50 and over age groups. Here, the percentage declines in the incidence of earnings among women are more severe, resulting in more pronounced differences in the incidence of earnings by sex.

Table 1.2
Population 15 Years and Over and Population With Earnings by Sex and Age, 1990

Age group	Population 15 years and over					
	Number			Distribution		
	Both sexes	Men	Women	Both sexes	Men	Women
	'000			%		
15 to 19	1,872	961	911	8.8	9.2	8.4
20 to 24	1,961	986	975	9.2	9.5	9.0
25 to 29	2,358	1,170	1,187	11.1	11.2	10.9
30 to 34	2,482	1,232	1,251	11.7	11.8	11.5
35 to 39	2,273	1,123	1,150	10.7	10.8	10.6
40 to 44	2,081	1,037	1,044	9.8	10.0	9.6
45 to 49	1,638	821	817	7.7	7.9	7.5
50 to 54	1,323	663	660	6.2	6.4	6.1
55 to 59	1,218	601	616	5.7	5.8	5.7
60 to 64	1,168	568	600	5.5	5.5	5.5
65 and over	2,932	1,260	1,672	13.8	12.1	15.4
Total	21,305	10,422	10,883	100.0	100.0	100.0

Age group	Population with earnings (1)					
	Number			Distribution		
	Both sexes	Men	Women	Both sexes	Men	Women
	'000			%		
15 to 19	1,022	537	485	7.1	6.8	7.4
20 to 24	1,651	856	795	11.4	10.8	12.1
25 to 29	2,010	1,062	948	13.9	13.4	14.4
30 to 34	2,092	1,133	958	14.5	14.3	14.6
35 to 39	1,934	1,036	898	13.4	13.1	13.7
40 to 44	1,781	956	825	12.3	12.1	12.6
45 to 49	1,368	749	620	9.5	9.5	9.4
50 to 54	1,025	584	441	7.1	7.4	6.7
55 to 59	794	475	319	5.5	6.0	4.9
60 to 64	513	329	184	3.5	4.2	2.8
65 and over	282	190	91	1.9	2.4	1.4
Total	14,471	7,907	6,564	100.0	100.0	100.0

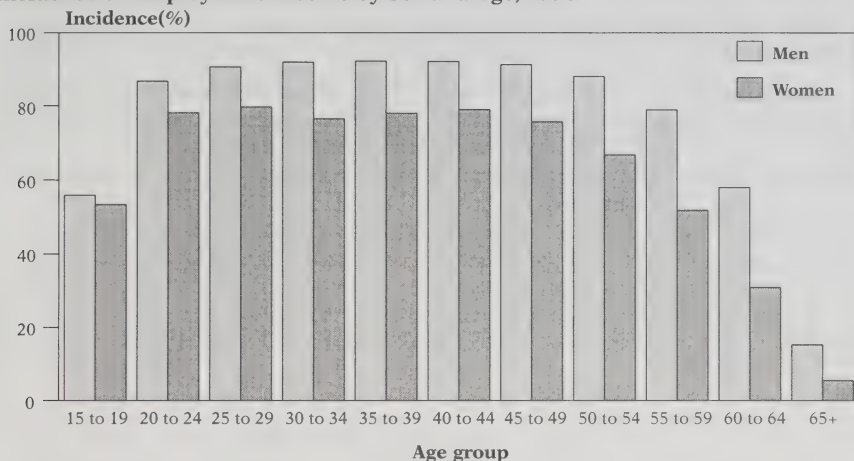
(1) Population 15 years and over who worked in 1990 and reported earnings.

Note: Estimates may not add to total due to rounding.

Source: 1991 Census of Canada.

Chart 1.2

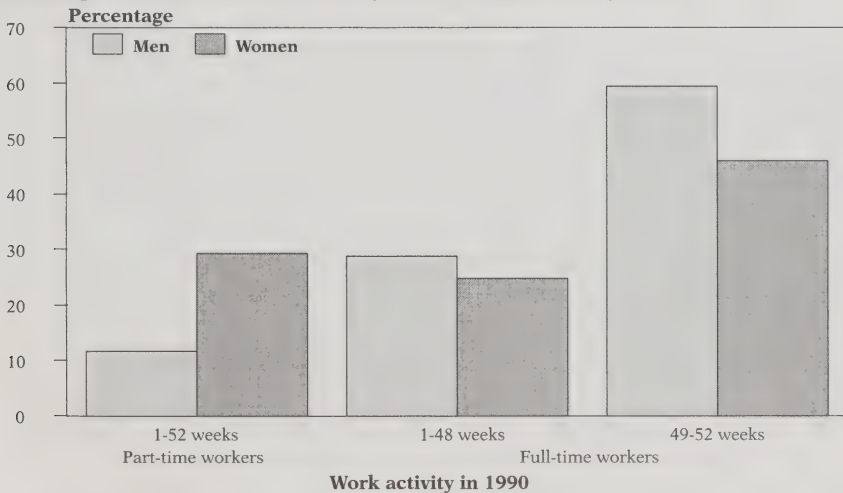
Incidence of Employment Income by Sex and Age, 1990



Source: 1991 Census of Canada.

Chart 1.3

Percentage Distribution of Earners by Sex and Work Activity, 1990



Source: 1991 Census of Canada.

In 1990, about 55% of all earners were men and 45% were women. **Chart 1.3** provides the percentage distribution of earners by sex and work activity in 1990. All earners were divided by their work activity into three groups: those who worked 1 to 52 weeks part time, those who worked 1 to 48 weeks full time, and those who worked 49 to 52 weeks, full time.

The largest proportion of both men and women with earnings worked 49 to 52 weeks, mostly full time. However, the proportion of men with earnings who worked full year, full time (59.4%) was much higher than that of women (46%). In contrast, the proportion of women who worked part time in 1990 (29.3%) was much higher than that of men (11.7%).

Chapter 2

Average Earnings in 1990

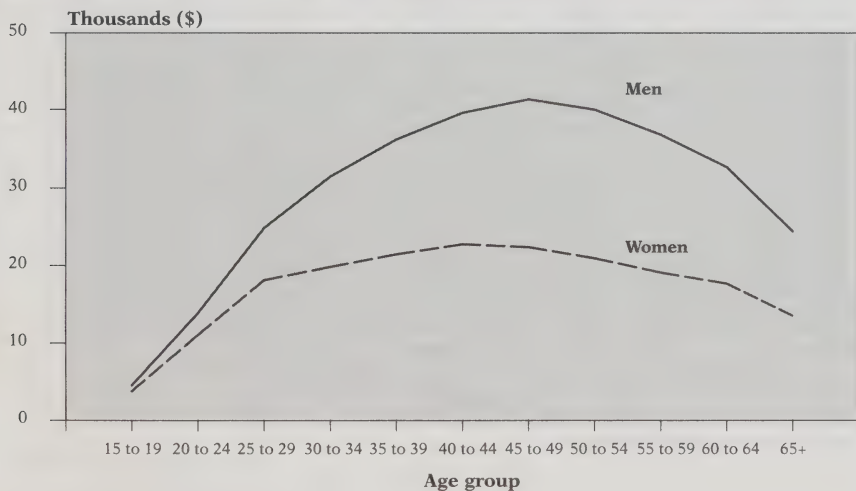
There is a close association between an individual's employment income and his or her demographic and economic characteristics. For example, other things being equal, the higher the number of weeks worked in a year or the higher the level of education, the higher the employment income is likely to be. This chapter presents the earnings of men and women in 1990 by age, marital status, work activity, education and major field of study, and occupation. In each section, the basic data are provided both for all workers and full-year, full-time workers.

Age

Table 2.1 provides the average earnings of individuals in 1990 by sex and five-year age groups. The relationship between employment income and age for men and women is illustrated for all workers in **Chart 2.1** and for full-year, full-time workers in **Chart 2.2**.

Chart 2.1

Average Earnings of Men and Women by Age, 1990



Note: For persons who worked in 1990.

Source: 1991 Census of Canada.

Table 2.1
Average Earnings by Sex, Age Group and Work Activity, 1990

Work activity and age group	Average earnings			Earnings ratio(1)
	Both sexes	Men	Women	
Worked in 1990		\$		%
15 to 19	4,184	4,542	3,789	83.4
20 to 24	12,502	13,858	11,042	79.7
25 to 29	21,665	24,842	18,104	72.9
30 to 34	26,126	31,460	19,818	63.0
35 to 39	29,371	36,243	21,448	59.2
40 to 44	31,844	39,707	22,733	57.3
45 to 49	32,809	41,441	22,375	54.0
50 to 54	31,869	40,112	20,938	52.2
55 to 59	29,736	36,878	19,089	51.8
60 to 64	27,300	32,684	17,665	54.0
65 and over	20,857	24,373	13,512	55.4
All ages	24,716	30,253	18,046	59.7
Worked full year, full time in 1990		\$		%
15 to 19	12,929	13,756	11,764	85.5
20 to 24	19,796	21,537	17,865	83.0
25 to 29	27,483	30,118	24,044	79.8
30 to 34	32,620	36,292	26,676	73.5
35 to 39	36,059	40,965	28,331	69.2
40 to 44	38,082	44,118	28,960	65.6
45 to 49	39,118	46,023	28,316	61.5
50 to 54	38,125	44,503	26,984	60.6
55 to 59	36,668	42,274	25,389	60.1
60 to 64	35,103	39,679	24,326	61.3
65 and over	29,296	32,255	20,543	63.7
All ages	33,714	38,648	26,033	67.4

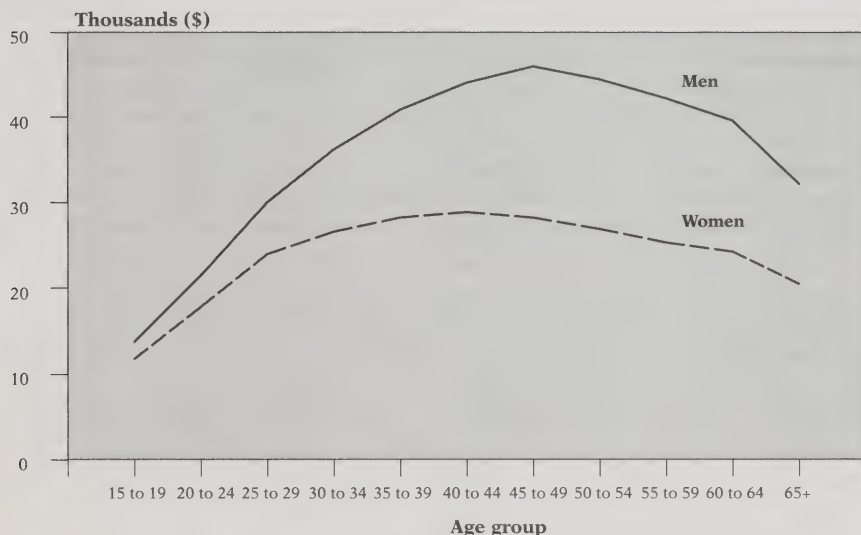
(1) Women's earnings as a percentage of men's earnings.

Source: 1991 Census of Canada.

For all men and for those working full year, full time, average earnings are lowest in the 15 to 19 year age group, then rise steadily to peak at the 45 to 49 year age group, and thereafter, decline steadily. The pattern for women's earnings is markedly different in several respects. First, for all workers and for those working full year, full time, women's earnings are lower than men's in all of the age groups. Second, the rise and fall of earnings with age is much less pronounced for women. Finally, average earnings for all women and for those working full year, full time, peak in a younger age group, among those 40 to 44 years.

The comparison of the average earnings of men and women also shows that women's earnings as a percentage of men's are higher in the younger age groups, where the least differences in work experience and family responsibilities are likely to exist. The observed ratios are lower for all workers than for full-year, full-time workers in all age groups. This reflects, in part, the higher proportion of women who worked part year or part time in 1990, whose lower annual earnings would subsequently lower the overall average earnings for women relative to men.

Chart 2.2
Average Earnings of Full-year, Full-time Workers by Sex and Age, 1990



Source: 1991 Census of Canada.

Marital Status

Much attention has been drawn to the fact that the last number of years have seen substantial increases in the number of women in the work force, particularly married women. For this reason, it is appropriate that earnings be examined by marital status.

The data in **Table 2.2** indicate that family responsibilities may have a larger impact on the average earnings of married women than for men. While married men's average earnings (\$36,339) were about 20% above the overall men's average, married women's average earnings (\$19,252) were only about 7% higher than the overall average for women. The ratio of married women's to men's earnings was 53%, which was lowest of all marital status categories. To some degree, the overall position of married women relative to men is due to the fact that 69.5% of married men worked full year, full time compared with only 48.7% of married women. Of course, the availability for full-time work may be restricted by family and household responsibilities which are borne to a larger extent by women.

Table 2.2
Average Earnings by Sex, Marital Status and Work Activity, 1990

Work activity and marital status	Average earnings		Earnings ratio(1)
	Men	Women	
Worked in 1990		\$	%
Divorced	31,604	23,326	73.8
Separated	32,492	20,246	62.3
Widowed	29,044	17,952	61.8
Married	36,339	19,252	53.0
Single	16,045	13,738	85.6
Total	30,253	18,046	59.7
Worked full year, full time in 1990		\$	%
Divorced	38,129	29,020	76.1
Separated	38,856	26,912	69.3
Widowed	36,327	24,994	68.8
Married	41,282	26,047	63.1
Single	27,262	24,881	91.3
Total	38,648	26,033	67.4

(1) Women's earnings as a percentage of men's earnings.

Source: 1991 Census of Canada.

Average earnings were lowest among both single men (\$16,045) and single women (\$13,738). For these groups, the ratio of women's to men's earnings was highest, at 85.6%. With about the same proportion of single men (36.3%) and single women (35.6%) working full year, full time, and with the larger proportion of both in the younger age groups, it is not surprising that their overall earnings differ the least.

Comparison of women's and men's earnings in the various marital status categories for full-year, full-time workers reveals a similar picture. For these workers, the differences are smallest among single men and women and largest among married men and women. Since this comparison is restricted to groups with the same work activity, it is for other reasons, whether related to job choices or opportunities, experience and training, career interruptions or other factors, that married women earn only 63.1% of married men.

In order to eliminate the impact of different levels of work activity, the average earnings of men and women who worked full year, full time are compared by age within various marital status categories in **Table 2.3**. Because of the relatively small number of divorced, separated and widowed individuals in the younger age groups who worked full year, full time, these categories have been grouped together. In fact, overall, 94% of men working full year, full time in 1990 were either married (76.5%) or single (17.5%), compared with about 87% of women who were either married (67.1%) or single (20.1%).

Some interesting points emerge from examining the relationship between earnings and age of full-year, full-time working single and married men and women (**Chart 2.3**). Comparing the average earnings of men and women by marital status, shows that the smallest differences are between single men and women. Among full-year, full-time workers, single women in 1990 earned 91.3% of the average for single men. Interestingly, the earnings profiles of single men and women start out with small differences in the younger age groups that diminish with age, until, in the small group of men and women over 65 years of age who work full year, full time, women earned very slightly more, on average, than their male counterparts.

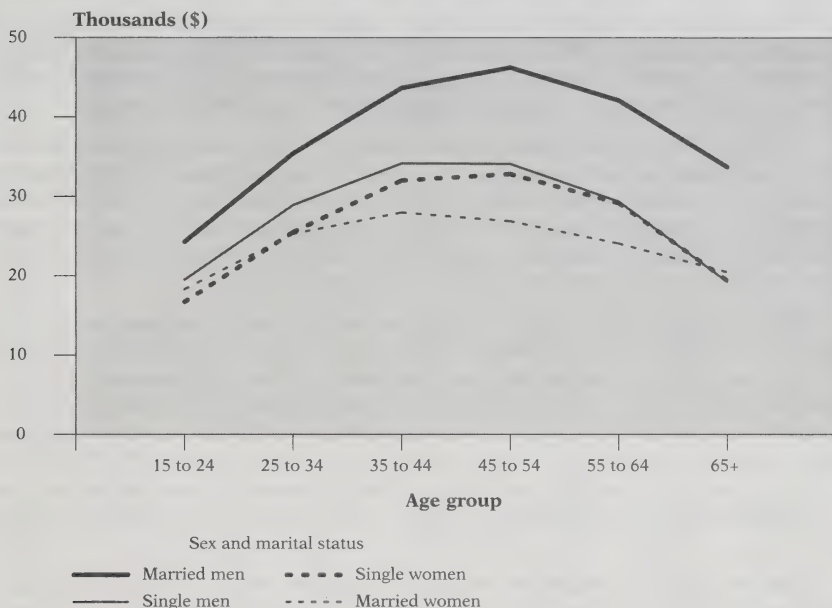
It is, however, between married men and married women that larger differences in earnings by age exist. In 1990, a married woman working full year, full time earned, on average, 63.1% of what a married man earned. And while the earnings curves for single men and women converge with increasing age, the earnings curves for married men and women, at least up to the age of 65, diverge, decreasing the ratio of women's earnings to men's. For example, married women 15 to 24 years of age earned 75.4% of the average for married men in the same age group, but married women 55 to 64 years of age earned only 57.2% of the average for married men in that age group.

Table 2.3**Average Earnings of Full-Year, Full-Time Workers by Sex, Age Group and Marital Status, 1990**

Sex and marital status	Average earnings						
	Total	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65+
\$							
Men							
Married	41,282	24,273	35,408	43,678	46,235	42,105	33,723
Single	27,262	19,504	28,917	34,158	34,094	29,369	19,240
All other	38,232	24,132	33,221	38,846	42,188	38,436	29,885
Total	38,648	20,730	33,510	42,499	45,365	41,291	32,255
Women							
Married	26,047	18,312	25,290	27,978	26,883	24,065	20,462
Single	24,881	16,706	25,508	32,005	32,824	29,171	19,394
All other	27,779	18,124	25,259	29,375	29,302	25,982	20,980
Total	26,033	17,355	25,349	28,644	27,775	25,025	20,543
Earnings ratio (1)							
%							
Married	63.1	75.4	71.4	64.1	58.1	57.2	60.7
Single	91.3	85.7	88.2	93.7	96.3	99.3	100.8
All other	72.7	75.1	76.0	75.6	69.5	67.6	70.2
Total	67.4	83.7	75.6	67.4	61.2	60.6	63.7

(1) Women's earnings as a percentage of men's earnings.

Source: 1991 Census of Canada.

Chart 2.3**Average Earnings of Single and Married Men and Women by Age, 1990**

Note: For persons who worked full year, full time in 1990.

Source: 1991 Census of Canada.

There are several reasons for the observed differences in the earnings of married men and women, some of which are not measurable with census data and are beyond the scope of this study. For example, some of the difference is likely due to the interruptions in career development that married women experience when they take time out of the labour force for childbearing and nurturing, or to the fact that they usually take on a larger share of family and household responsibilities. For these and other reasons, in 1990 the earnings of married women in all age groups were below those of men.

Work Activity

As shown by the statistics in **Table 2.4**, there were significant differences in the distribution and earnings of men and women by the number of weeks worked in 1990, and by whether or not they worked full time or part time. The combination of these differences contributes substantially to the overall difference in men's and women's earnings.

The percentage distributions of men and women by work activity reveal that women are more concentrated in the lower-paying part-time categories. Overall, the proportion of women who worked full time in 1990 (70.7%) was substantially lower than that for men (88.3%), and nearly one-third of all working women (29.3%) worked part time compared with only 11.7% of men. Likewise, a smaller proportion of women (56.9%) worked the full year in 1990 (49 to 52 weeks), compared with men (62.7%).

Although the average earnings in 1990 of both men and women are positively related to the number of weeks worked, the average earnings of men rose more quickly with increased number weeks of work. For example, men's earnings were lowest for those working 1 to 13 weeks, at \$6,019, rising steadily with increased weeks worked, to \$37,251 for those who worked 49 to 52 weeks. For women, the earnings pattern was similar but within a narrower range of earnings, from \$4,031 to \$23,424. Contributing to these differences is the fact that, in most of the weeks worked categories, a higher proportion of men worked full time. Overall, almost 9 out of every 10 men, compared with 7 out of 10 women worked full time in 1990.

Similarly, although the average earnings for full-time work are larger than those for part-time work for both men and women, the difference in average earnings between the two groups of work activity are larger for men. Full-time working men earned, on average, \$33,144 in 1990, nearly four times the \$8,482 earned by those working part time. Women working full time earned \$21,822 on average, 2.4 times more than the average earnings of part-time workers of \$8,913.

Finally, the combined effects of weeks worked and work intensity had more of an impact on the average earnings of men than those of women. In each of the groups of weeks worked, full-time working men's average earnings are more than double those of part-time workers, and are 3.3 times higher in the case of men working 49 to 52 weeks. The average earnings of full-time working women ranged from only 1.6 times those of part-time workers in the 14 to 26 weeks worked category, to 2.1 times those of women who worked 49 to 52 weeks.

Table 2.4
Average Earnings by Sex, Weeks Worked and Work Intensity, 1990

Weeks worked in 1990 and intensity	Distribution		Percentage of women(1)	Average earnings		Earnings ratio(2)
	Men	Women		Men	Women	
	%		%	\$		%
Worked in 1990						
1-13	7.0	9.3	52.5	6,019	4,031	67.0
14-26	10.7	12.9	50.0	12,534	8,260	65.9
27-39	7.7	8.5	47.9	19,149	12,378	64.6
40-48	11.9	12.4	46.3	30,728	17,940	58.4
49-52	62.7	56.9	43.0	37,251	23,424	62.9
Total	100.0	100.0	45.4	30,253	18,046	59.7
Worked part time						
1-13	2.9	5.1	59.5	3,670	3,128	85.2
14-26	2.8	5.7	62.9	7,076	6,210	87.8
27-39	1.5	3.4	66.2	10,076	8,362	83.0
40-48	1.4	4.1	71.6	12,458	11,075	88.9
49-52	3.2	10.9	73.6	11,592	12,399	107.0
Total	11.7	29.3	67.5	8,482	8,913	105.1
Worked full time						
1-13	4.1	4.2	45.8	7,670	5,135	66.9
14-26	7.9	7.2	43.0	14,460	9,887	68.4
27-39	6.2	5.1	40.4	21,267	15,089	71.0
40-48	10.6	8.3	39.4	33,069	21,353	64.6
49-52	59.4	46.0	39.1	38,648	26,033	67.4
Total	88.3	70.7	39.9	33,144	21,822	65.8

(1) Percentage of women in each of the weeks worked categories.

(2) Women's earnings as a percentage of men's earnings.

Note: Estimates may not add to total due to rounding.

Source: 1991 Census of Canada.

On the whole, women in 1990 had 59.7% of the employment incomes of men. Comparing the earnings of men and women by work activity reveals that the gap in the earnings of full-time workers was larger than that of part-time workers in each of the weeks worked categories. For example, women working full time earn 65.8% of their male counterparts. This ratio of earnings for full-time workers ranged from 64.6% among those who worked 40 to 48 weeks, to a high of 71% among those who worked 27 to 39 weeks. In comparison, the ratios for part-time workers ranged from 83% in the 27 to 39 weeks worked category, to 107% for those who worked 49 to 52 weeks. Furthermore, because such a large proportion of part-time working women worked 49 to 52 weeks (37.2%) compared with men (27.6%), and because they had earnings higher than men, part-time working women's average earnings were 5.1% higher than those of men.

However, as pointed out earlier, the average earnings of full-year, full-time working women were lower than those of men. This fact, combined with the larger proportion of female earners working part year or part time, contributes to the gap that exists in the overall earnings of men and women.

Education and Major Field of Study

The investment that individuals make in their education, combined with their experience, often translates into higher earnings. Generally, higher education opens the door to higher paying job opportunities or, through the application of skills and knowledge acquired in professional education and training, results in more earning power. **Table 2.5** presents data on average earnings in 1990 by sex and highest level of schooling.

In 1990, for all earners, higher average earnings were associated with higher levels of education. There was, however, one exception. Individuals with grade 9 to 13 without a certificate earned slightly less than those with less than a grade 9 education. The lower position overall for the former group appears to be related to several factors. On the one hand, the grade 9 to 13 group contains a large number of part-year or part-time workers, likely students still attending school. On the other hand, the group with less than grade 9 education contains proportionately more older, hence experienced, workers. For individuals with university degrees, earnings were substantially higher than those for other levels of education. For example, men with a university degree earned \$48,848, over twice the average earnings of both men with less than grade 9 education (\$23,208) and those without a secondary school certificate (\$22,349). Similarly, average earnings of women with a university degree (\$29,132) were over twice the earnings of those with less than grade 9 (\$12,703) and of those without a secondary school certificate (\$12,696).

The relationship of earnings to educational levels is almost identical for full-year, full-time workers, although earnings, on the basis of more weeks worked, are naturally higher in each of the education groups.

Table 2.5

Average Earnings by Sex, Highest Level of Schooling and Work Activity, 1990

Work activity and highest level of schooling	Average Earnings			Earnings ratio (1)
	Both sexes	Men	Women	
Worked in 1990		\$		%
Less than grade 9	19,502	23,208	12,703	54.7
Grade 9-13, no certificate	18,222	22,349	12,696	56.8
Grade 9-13, certificate	21,450	26,820	16,318	60.8
Trade certificate or some university	24,659	30,259	18,313	60.5
University degree	40,307	48,848	29,132	59.6
Total	24,716	30,253	18,046	59.7
Worked full year, full time in 1990				
Less than grade 9	25,077	28,532	17,406	61.0
Grade 9-13, no certificate	27,289	31,269	20,386	65.2
Grade 9-13, certificate	28,919	33,892	22,982	67.8
Trade certificate or some university	32,850	37,612	25,730	68.4
University degree	49,861	56,128	38,815	69.2
Total	33,714	38,648	26,033	67.4

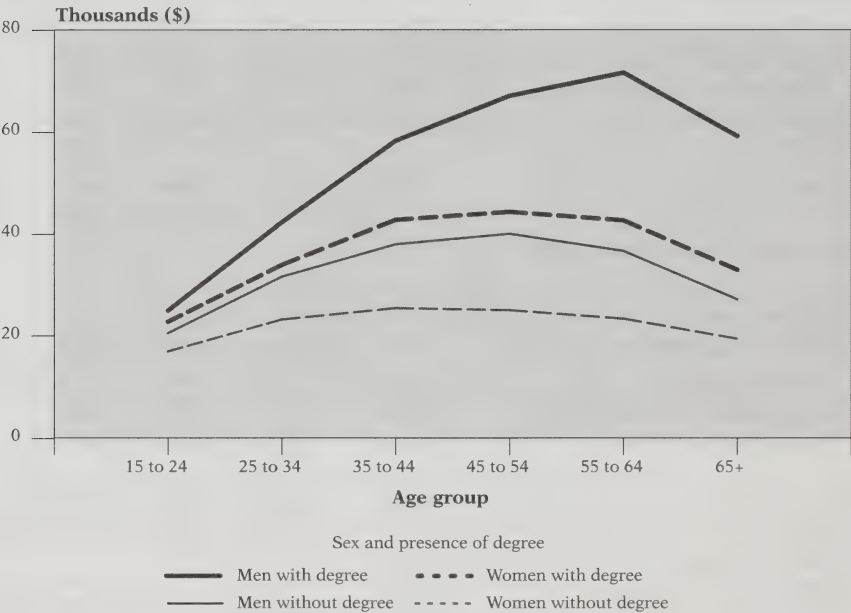
(1) Women's earnings as a percentage of men's earnings.

Source: 1991 Census of Canada.

Regardless of educational attainment, women's earnings remained below men's, but the gap did narrow with increased levels of learning, and slightly more so for full-year, full-time workers. For example, among this group, women with less than grade 9 education earned 61.0% of the average for men with a similar level of education. This ratio increased with each subsequent level of educational attainment, reaching 69.2% among those with university degrees. Nevertheless, for all earners, the variation in the earnings gap by level of education amounted to only 6 percentage points, between those with less than grade 9 (54.7%) and those with a secondary school certificate (60.8%).

The economic advantages of a university education, in terms of average earnings, become more apparent when the earnings profiles of full-year, full-time working men and women are examined by age, as in **Chart 2.4**.¹

Chart 2.4
Average Earnings of Men and Women With and Without University Degree by Age, 1990



Note: For persons who worked full year, full time in 1990.

Source: 1991 Census of Canada.

¹ In Chart 2.4 all earners who worked full year, full time without a university degree are included. However, in Table 2.6, the earnings of degree holders are compared with the earnings of those without degrees by major field of study. In that table, persons whose highest level of schooling was secondary school graduation or less are excluded from the “without degree” group as no major field of study exists for them.

For men and women, average 1990 earnings in all age groups were higher for those with a university degree. Likewise, for both sexes with a university degree, earnings rose with age at a faster rate and peaked at a higher level than for those without a degree. There were, however, significant differences in the earnings profiles of university-educated men and women by age.

For university-educated men, earnings for those entering the work force (ages 15 to 24) started at \$24,971 and climbed dramatically with successive 10-year age groups, peaking at \$71,597 for those 55 to 64 years of age. The earnings profile of university-educated women, as compared with men, can be characterized as follows: earnings were below those of men for all age groups; the rise and fall with age was much less pronounced than in the case of men; earnings peaked at a substantially lower level, \$44,325, and in a younger age group, among those 45 to 54.

Average earnings of men and women with post-secondary qualifications, as shown in **Table 2.6**, are examined by the major field of study; that is, the area of learning or training in which individuals have earned their highest certificate, diploma or degree (above a secondary school graduation certificate). The data are restricted to men and women who worked full year, full time in 1990, and are classified by the presence or absence of a university degree.

In 1990, about one-half of full-year, full-time working men (2.4 million) and women (1.5 million) had some postsecondary qualifications. Of these, about one in three held a university degree (35.7% of men and 32.8% of women).

In 1990, the highest average earnings for both men and women who worked full year, full time, were among those whose degrees were in Health professions, sciences and technologies. Men's average earnings were \$88,174 while women's were \$45,318. That individuals with degrees in this field had the highest average earnings is not surprising, since these individuals are likely to be in the higher-paying occupations of Medicine and health (as will be seen in the section on occupation). The lowest average earnings for both men and women were found among those with degrees in Fine and applied arts, at \$40,234 and \$31,664, respectively.

The earnings advantage enjoyed by those with a university degree, discussed earlier, holds true within all of the major field of study groups. As **Table 2.6** shows, men with degrees in Engineering and applied science technologies and trade earned 18.4% more than those who studied in this field but did not obtain a degree, while those with a degree in Health professions, sciences and technologies earned, on average, nearly two and half times more than for those without a degree; \$88,174 compared with \$37,329. The economic advantages of a university degree for women were most apparent for those majoring in the area of Agricultural and biological sciences and technologies, where earnings were 61% higher than for those without a degree. Having a degree meant the least for women whose major field of study was Engineering and applied science technologies and trade, but even for this group a degree still paid 21% more.

Table 2.6

Average Earnings of Full-Year, Full-Time Workers With Postsecondary Qualifications by Sex, Major Field of Study and Presence of University Degree, 1990

Presence of degree and major field of study	Distribution		Average earnings		Earnings ratio(1)
	Men	Women	Men	Women	
	%		\$		
Without university degree					
Education, recreational and counselling services	1.7	8.9	35,603	26,797	75.3
Fine and applied arts	4.1	8.7	33,570	20,257	60.3
Humanities and related fields	2.3	3.0	34,092	26,183	76.8
Social sciences and related fields	3.8	4.5	40,664	25,287	62.2
Commerce, management and business administration	15.5	43.0	42,563	25,703	60.4
Agricultural and biological sciences/technologies	4.9	3.3	29,863	21,343	71.5
Engineering and applied sciences	1.2	0.1	44,648	28,193	63.1
Engineering and applied science technologies and trades	62.5	5.8	38,182	27,953	73.2
Health professions, sciences and technologies	2.5	21.3	37,329	29,889	80.1
Mathematics and physical sciences	1.2	1.0	40,961	29,390	71.8
Others (2)	0.3	0.3	31,426	23,935	76.2
Total	100.0	100.0	38,302	26,238	68.5
With university degree					
Education, recreational and counselling services	12.3	28.8	47,393	39,312	82.9
Fine and applied arts	1.3	2.7	40,234	31,664	78.7
Humanities and related fields	9.4	13.8	43,903	36,705	83.6
Social sciences and related fields	17.7	19.1	59,311	38,182	64.4
Commerce, management and business administration	19.9	12.4	57,880	38,171	65.9
Agricultural and biological sciences/technologies	4.4	4.9	46,047	34,294	74.5
Engineering and applied sciences	18.1	2.1	57,958	39,318	67.8
Engineering and applied science technologies and trades	0.2	0.0	45,217	33,692	74.5
Health professions, sciences and technologies	6.3	11.1	88,174	45,318	51.4
Mathematics and physical sciences	10.4	5.1	52,729	39,483	74.9
Others (2)	0.1	0.1	43,652	36,776	84.2
Total	100.0	100.0	56,128	38,815	69.2

(1) Women's earnings as a percentage of men's earnings.

(2) Includes all others and those with no specialization.

Note: Estimates may not add to total due to rounding.

Source: 1991 Census of Canada.

Finally, a comparison of the ratio of women's to men's earnings reveals that there is less of a difference in the earnings of men and women with a university degree than in those without degrees for all major fields of study except Health professions, sciences and technologies. Furthermore, women's earnings as a percentage of men's were slightly higher for those with postsecondary qualifications, whether degree holders (ratio of 69.2%) or not (ratio of 68.5%), when compared with the overall earnings ratio of 67.4%.

Occupation

Table 2.7 provides the average earnings of men and women in 1990 by major occupation groups.²

The statistics indicate that in all of the major occupation groups women earn less on average than their male counterparts. While this phenomenon is not new, and indeed has been documented in other literature, the earning position of women compared with men continues to draw considerable attention. The comparison of earnings by occupational groupings for men and women reveals some interesting differences.

In 1990, women's earnings varied from a low of \$8,739 in Forestry and logging occupations to a high of \$28,383 for those employed in Managerial, administrative and related occupations. Men's earnings demonstrated an even wider range, from a low of \$15,430 for those in Farming, horticultural and animal husbandry occupations to a high of \$57,652 for those in occupations related to Medicine and health.

In addition to the observed differences in the average earnings of men and women in these major groupings, the distribution of women shows a large degree of clustering within certain occupations compared with men.

For example, in 1990, the distribution of all working women reveals that about one-half (48.0%) were in two low-paying occupational groups: Clerical and related occupations and Service occupations. Women dominated these two occupational groups, accounting for almost 8 out of 10 of those in clerical occupations, and nearly 6 out of 10 of those employed in service occupations. Furthermore, the average earnings of women in these two occupations, at \$16,911 and \$10,344 respectively, are well below their overall average of \$18,046. Contributing to the overall low earnings for women in these groups, especially for those in Service occupations, is the large proportion of part-year or part-time workers.

² Similar data, by detailed occupation and work activity, have been released in a separate publication, *Employment Income by Occupation*, Catalogue No. 93-332, 1991 Census of Canada.

Table 2.7
Average Earnings by Sex, Major Occupation Group and Work Activity, 1990

Work activity and major occupation group	Distribution		Percentage of women (1)	Average earnings		Earnings ratio (2)
	Men	Women		Men	Women	
	%		%	\$		%
Worked in 1990						
Managerial, administrative and related occupations	13.8	10.1	37.8	47,580	28,383	59.7
Occupations in natural sciences, engineering and mathematics	5.8	1.8	20.1	39,014	27,464	70.4
Occupations in social sciences and related fields	1.6	3.0	61.5	46,716	22,749	48.7
Occupations in religion	0.3	0.1	21.6	23,922	16,134	67.4
Teaching and related occupations	2.9	6.3	64.3	40,775	26,781	65.7
Occupations in medicine and health	1.9	8.9	79.3	57,652	24,441	42.4
Artistic, literary, recreational and related occupations	1.8	1.7	44.9	25,089	17,691	70.5
Clerical and related occupations	7.2	31.7	78.5	22,676	16,911	74.6
Sales occupations	9.0	9.6	46.9	27,732	14,058	50.7
Service occupations	10.3	16.3	56.7	20,311	10,344	50.9
Farming, horticultural and animal husbandry occupations	4.1	1.8	26.3	15,430	9,641	62.5
Fishing, trapping and related occupations	0.6	0.1	14.0	18,259	9,266	50.7
Forestry and logging occupations	1.0	0.1	8.7	21,222	8,739	41.2
Mining and quarrying including oil and gas field occupations	0.8	0.0	2.8	36,715	20,990	57.2
Processing occupations	3.9	1.7	26.5	26,914	12,824	47.6
Machining and related occupations	3.2	0.3	6.4	29,263	17,542	59.9
Product fabricating, assembling and repairing occupations	8.7	3.1	22.9	27,855	14,618	52.5
Construction trade occupations	10.4	0.4	2.8	26,471	17,172	64.9
Transport equipment operating occupations	5.9	0.7	9.3	27,792	15,185	54.6
Material handling and related occupations, not elsewhere classified	2.2	0.8	23.5	22,203	13,954	62.8
Other crafts and equipment operating occupations	1.5	0.6	23.6	32,823	16,618	50.6
Occupations not elsewhere classified	3.0	0.9	20.3	20,170	14,260	70.7
Total	100.0	100.0	45.4	30,253	18,046	59.7

Table 2.7
Average Earnings by Sex, Major Occupation Group and Work Activity, 1990
 (concluded)

Work activity and major occupation group	Distribution		Percentage of women (1)	Average earnings		Earnings ratio (2)
	Men	Women		Men	Women	
	%		%	\$		%
Worked full year, full time in 1990						
Managerial, administrative and related occupations	18.8	15.3	34.4	51,258	32,700	63.8
Occupations in natural sciences, engineering and mathematics	7.2	2.4	17.4	45,070	34,409	76.3
Occupations in social sciences and related fields	1.7	3.1	53.6	59,003	32,817	55.6
Occupations in religion	0.4	0.1	15.6	26,566	20,709	78.0
Teaching and related occupations	3.4	6.9	56.5	48,279	37,804	78.3
Occupations in medicine and health	2.0	8.9	73.8	62,026	31,557	50.9
Artistic, literary, recreational and related occupations	1.4	1.4	38.8	35,547	28,089	79.0
Clerical and related occupations	6.9	33.5	75.8	30,829	23,258	75.4
Sales occupations	9.3	7.9	35.2	36,436	23,328	64.0
Service occupations	8.6	11.2	45.5	30,498	17,231	56.5
Farming, horticultural and animal husbandry occupations	3.5	1.5	21.9	20,720	12,956	62.5
Fishing, trapping and related occupations	0.1	0.0	8.6	29,499	18,868	64.0
Forestry and logging occupations	0.3	0.0	3.7	35,293	21,581	61.1
Mining and quarrying including oil and gas field occupations	0.7	0.0	1.9	45,547	36,120	79.3
Processing occupations	3.8	1.3	17.5	33,651	20,536	61.0
Machining and related occupations	3.2	0.3	5.7	33,502	21,678	64.7
Product fabricating, assembling and repairing occupations	9.6	3.2	17.6	32,351	18,916	58.5
Construction trade occupations	7.4	0.3	2.4	35,322	26,276	74.4
Transport equipment operating occupations	5.6	0.5	5.7	33,634	23,992	71.3
Material handling and related occupations, not elsewhere classified	1.8	0.8	21.4	30,942	20,230	65.4
Other crafts and equipment operating occupations	1.8	0.6	17.9	37,918	22,905	60.4
Occupations not elsewhere classified	2.3	0.8	18.5	30,125	21,628	71.8
Total	100.0	100.0	39.1	38,648	26,033	67.4

(1) Percentage of women in each occupation group.

(2) Women's earnings as a percentage of men's earnings.

Note: Estimates may not add to total due to rounding.

Source: 1991 Census of Canada.

Several other occupations are notably dominated by women, including Medicine and health (79.3% female), Teaching and related occupations (64.3% female) and occupations in Social sciences and related fields (61.5% female). In each of these broad groups, examination of detailed occupation distributions (not shown) reveals that women were more concentrated in the lower-paying occupations. For example, in the major group of Medicine and health, women were more predominant in the lower-paying Nursing and therapy occupations, where average earnings were \$23,461³, than among the higher-paying occupations such as Physicians and surgeons, where average earnings in 1990 were \$95,728. In the Teaching and related group, women dominated the lower-paying Elementary and secondary teaching occupations (\$31,864), while men held most of the higher-paying University teaching occupations (\$37,296). Finally, in the occupations in Social sciences and related fields, women were much more likely to work in the lower-paying Social work and related fields (\$19,745), while men were more likely to be in the much higher paying occupations of Law and jurisprudence (\$61,188).

Unlike women, men are more evenly distributed over the 22 major occupation groups, although three of these broad groups each contain over 10% of working men. Almost 14% of men were employed in Managerial, administrative and related occupations, followed by just over 10% in each of Service occupations and Construction trade occupations. Of these groups, only men in Managerial, administrative and related occupations enjoyed above average earnings, at \$47,580, over 1.5 times men's overall average earnings of \$30,253. Those employed in Service occupations and Construction trade occupations had earnings 33% and 13% below average, respectively. Again, lower than average earnings in these groups can be attributed largely to the higher than average proportion of part-year or part-time workers in these two groups.

The earnings data by occupation for full-year, full-time workers reveal much the same picture as that for all workers. For these groups, the exclusion of part-year and part-time workers from the comparison of earnings reveals an improved position for women relative to men in each of the major groups. Nevertheless, the average earnings of women working full year, full time remained below that of men in each of the major occupation groups.

³ For average earnings by detailed occupation, see *Employment Income by Occupation*, Catalogue No. 93-332, 1991 Census.

Chapter

3

Distribution of Earnings in 1990

Table 3.1 provides distributions by sex and age, for all workers and full-year, full-time workers 15 years of age and over. **Table 3.2** provides the earnings distributions, by weeks worked in 1990, for all workers and full-time workers.

Sex and Age

In 1990, the proportion of all working women in each of the earnings groups below \$25,000 was substantially higher than that of men, while the proportion of women in all earnings groups over \$25,000 was consistently lower. In 1990, 46% of all working men were in the combined earnings groups under \$25,000, compared with almost three out of four working women (72.4%). In fact, over one-third (35%) of women had earnings below \$10,000 in 1990, while only 21% of men had earnings below this level. On the other hand, at the upper end of the earnings scale, 15.4% of working men had employment incomes of \$50,000 or more in 1990, compared with only 3.3% of women. Contributing to this difference in earnings distribution is the fact that 54% of working women, compared with 40.6% of men, worked part year or part time in 1990.

The distributions of all workers also reflect the higher proportion of younger and older workers in the lower income groups. For example, 64.5% of those 15 to 24 years of age and 43.7% of those 65 years and over had earnings of less than \$10,000 in 1990. Comparatively, only 18.3% of those 25 to 44 years of age and 18.% of those 45 to 64 years of age had earnings below \$10,000 in 1990. Once again, contributing to the difference is the fact that in both of the younger and older age groups, there is a higher proportion of part-year or part-time workers.

The earnings distributions of all workers in 1990 in the upper panel of **Table 3.1** reflect, to a large degree, the lower earnings of those working part-year or part-time. As can be expected, full-year full-time workers, shown in the lower panel, are more concentrated in the higher earnings groups.

The distributions of earnings of full-year, full-time working men and women reflect lower earnings for women. For example, nearly twice the proportion of women (52.2%) had earnings below \$25,000, compared with men (26.7%). And at the other end of the earnings scale, 22.3% of men compared with 5.9% of women had earnings of \$50,000 or over in 1990.

Table 3.1
Distribution of Earners by Sex, Age Groups, Work Activity and Employment
Income Groups, 1990

Work activity and 1990 employment income group	Sex			Age group			
	Both	Men	Women	15 to 24	25 to 44	45 to 64	65+
Worked in 1990	%			%			
Less than \$2,000 (1)	7.1	5.7	8.8	19.3	4.0	4.0	14.9
\$ 2,000 – \$ 4,999	8.6	6.4	11.1	23.0	5.2	5.0	12.3
\$ 5,000 – \$ 9,999	11.7	8.8	15.1	22.2	9.1	9.0	16.5
\$ 10,000 – \$14,999	10.5	8.0	13.4	12.6	10.1	9.6	12.8
\$ 15,000 – \$19,999	9.7	8.0	11.8	8.9	10.3	9.1	9.6
\$ 20,000 – \$24,999	10.5	9.1	12.2	6.5	12.0	10.4	7.9
\$ 25,000 – \$29,999	9.0	9.0	9.0	3.5	10.8	9.5	5.7
\$ 30,000 – \$34,999	8.2	9.7	6.5	2.0	10.1	9.0	4.4
\$ 35,000 – \$39,999	6.2	7.8	4.3	0.9	7.7	7.1	3.3
\$ 40,000 – \$49,999	8.7	12.0	4.6	0.7	10.4	11.1	4.0
\$ 50,000 – \$59,999	4.6	6.9	1.8	0.2	5.1	6.9	2.5
\$ 60,000 – \$74,999	2.9	4.5	0.9	0.1	2.9	4.7	2.1
\$ 75,000 – \$99,999	1.3	2.1	0.3	0.1	1.2	2.4	1.7
\$100,000 and over	1.2	1.9	0.3	0.0	1.0	2.2	2.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number (000's)	14,471	7,907	6,564	2,673	7,817	3,700	282
Average employment income (\$)	24,716	30,253	18,046	9,322	27,085	31,126	20,857
Median employment income (\$)	20,789	26,818	15,524	6,280	24,675	26,077	12,235
Worked full year, full time in 1990							
Less than \$2,000 (1)	1.8	1.7	1.9	2.7	1.5	1.9	10.1
\$ 2,000 – \$ 4,999	1.5	1.3	1.8	2.6	1.2	1.6	6.4
\$ 5,000 – \$ 9,999	3.7	2.6	5.3	9.6	2.9	3.5	10.0
\$ 10,000 – \$14,999	7.1	4.7	10.8	19.0	5.9	6.2	11.2
\$ 15,000 – \$19,999	9.6	6.8	14.0	21.9	8.9	7.9	10.7
\$ 20,000 – \$24,999	13.0	9.6	18.4	19.7	13.2	11.1	10.3
\$ 25,000 – \$29,999	12.4	10.8	14.9	11.3	13.3	11.1	8.1
\$ 30,000 – \$34,999	12.0	12.6	11.1	6.6	13.3	11.0	6.8
\$ 35,000 – \$39,999	9.4	10.6	7.6	3.2	10.5	9.0	5.3
\$ 40,000 – \$49,999	13.6	17.0	8.4	2.3	14.6	14.7	6.6
\$ 50,000 – \$59,999	7.4	10.0	3.4	0.5	7.4	9.4	4.3
\$ 60,000 – \$74,999	4.6	6.6	1.5	0.3	4.2	6.5	3.5
\$ 75,000 – \$99,999	2.1	3.1	0.6	0.1	1.7	3.3	2.8
\$100,000 and over	1.7	2.6	0.4	0.1	1.3	2.9	4.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number (000's)	7,719	4,700	3,019	592	4,724	2,298	104
Average employment income (\$)	33,714	38,648	26,033	19,148	33,624	37,852	29,296
Median employment income (\$)	30,198	34,900	24,409	18,570	30,646	32,482	20,488

(1) Includes loss.

Note: Estimates may not add to total due to rounding.

Source: 1991 Census of Canada.

Table 3.2**Distribution of Earners by Weeks Worked, Work Intensity and Employment Income Groups, 1990**

Work activity and 1990 employment income group	Weeks worked in 1990					
	All weeks	1-13	14-26	27-39	40-48	49-52
Worked in 1990			%			
Less than \$2,000 (1)	7.1	42.6	11.1	5.7	3.6	2.4
\$ 2,000 – \$ 4,999	8.6	29.9	22.4	11.2	6.2	3.2
\$ 5,000 – \$ 9,999	11.7	14.7	29.5	21.4	12.0	6.4
\$ 10,000 – \$14,999	10.5	5.3	15.4	18.9	13.5	8.5
\$ 15,000 – \$19,999	9.7	2.6	8.1	13.9	12.9	9.8
\$ 20,000 – \$24,999	10.5	1.8	5.1	10.0	12.6	12.4
\$ 25,000 – \$29,999	9.0	1.0	2.9	6.4	9.5	11.5
\$ 30,000 – \$34,999	8.2	0.7	1.9	4.6	8.2	10.9
\$ 35,000 – \$39,999	6.2	0.4	1.0	2.6	5.8	8.5
\$ 40,000 – \$49,999	8.7	0.5	1.3	2.8	7.5	12.2
\$ 50,000 – \$59,999	4.6	0.2	0.6	1.2	3.5	6.6
\$ 60,000 – \$74,999	2.9	0.2	0.3	0.7	2.3	4.1
\$ 75,000 – \$99,999	1.3	0.1	0.2	0.3	1.2	1.9
\$100,000 and over	1.2	0.1	0.1	0.3	1.4	1.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number (000's)	14,471	1,160	1,695	1,168	1,760	8,689
Average employment income (\$)	24,716	4,976	10,396	15,903	24,804	31,310
Median employment income (\$)	20,789	2,517	7,334	12,734	20,486	27,953
Worked full time in 1990						
Less than \$2,000 (1)	3.6	28.8	4.6	3.0	2.4	1.8
\$ 2,000 – \$ 4,999	5.0	34.7	16.8	4.6	2.4	1.5
\$ 5,000 – \$ 9,999	8.6	18.5	32.4	17.9	7.2	3.7
\$ 10,000 – \$14,999	9.8	7.0	18.5	20.8	12.3	7.1
\$ 15,000 – \$19,999	10.3	3.6	10.1	16.8	13.8	9.6
\$ 20,000 – \$24,999	12.0	2.6	6.6	12.4	14.3	13.0
\$ 25,000 – \$29,999	10.6	1.5	3.8	8.2	11.2	12.4
\$ 30,000 – \$34,999	9.9	1.1	2.5	5.9	9.8	12.0
\$ 35,000 – \$39,999	7.5	0.6	1.4	3.4	7.1	9.4
\$ 40,000 – \$49,999	10.6	0.8	1.7	3.7	9.2	13.6
\$ 50,000 – \$59,999	5.6	0.4	0.8	1.6	4.4	7.4
\$ 60,000 – \$74,999	3.5	0.2	0.5	0.9	2.8	4.6
\$ 75,000 – \$99,999	1.6	0.1	0.3	0.4	1.4	2.1
\$100,000 and over	1.4	0.1	0.2	0.3	1.7	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number (000's)	11,624	597	1,099	827	1,382	7,719
Average employment income (\$)	28,621	6,509	12,493	18,771	28,453	33,714
Median employment income (\$)	25,236	3,482	9,185	15,805	24,103	30,198

(1) Includes loss.

Note: Estimates may not add to total due to rounding.

Source: 1991 Census of Canada.

The earnings distributions by age illustrate the differences in earning levels of the young, the elderly and other full-year, full-time workers. For example, three-quarters of young persons (ages 15 to 24) working full year, full time (75.5%) earned less than \$25,000 in 1990. Very few young persons working full year, full time fall into the higher income groups (only 1% earn over \$50,000), largely because of lack of experience, which usually translates into lower annual earnings. In contrast, a very small percentage of full-year, full-time workers in the age groups 25 to 44 (5.6%) and 45 to 64 (7%) had earnings below \$10,000, and substantially more of the full-year, full-time workers in these age groups had higher earnings. For example, 14.6% of those 25 to 44 years of age, and 22.1% of those 45 to 64, had earnings of more than \$50,000 in 1990. The earnings distributions of these two prime working age groups, in fact, reveal minor differences. As could be expected, the younger age group (25 to 44) had marginally higher proportions in each of the earnings groups up to \$40,000, while the older age groups, who generally have longer attachment to the work force and more experience, had larger proportions in the earnings groups over \$40,000.

The earnings profile changes dramatically for workers aged 65 and over. Compared with less than one-quarter of full-year, full-time workers aged 45 to 64, nearly one-half (48.4%) of those aged 65 and over earned less than \$20,000 in 1990. The proportions of the elderly full-year, full-time workers were significantly lower in all of the earnings groups over \$20,000, except in the highest group. Data from the 1991 Census (not shown) indicated that the proportion of self-employed continuing full-year, full-time work after the age of 64 was much higher than for paid workers. In 1990, nearly one-third of elderly full-year, full-time workers were self-employed. It is likely for this reason that the highest proportion of full-year, full-time workers with earnings of \$100,000 or more was among the elderly.

Work Activity

Table 3.2 illustrates the differences in the distributions of earnings by various degrees of work effort, in terms of weeks worked, for all workers and for those who worked full time in 1990. From these distributions the relationship between work effort and earnings level becomes evident. Almost 9 out of 10 persons who worked 1 to 13 weeks (87.2%) had earnings lower than \$10,000. The proportion with earnings below this level drops steadily as the number of weeks worked increases – to 63% for those who worked 14 to 26 weeks, 38.3% for 27 to 39 weeks of work, 21.8% for 40 to 48 weeks of work and 12% of those who worked 49 to 52 weeks. Similarly, the proportion with earnings over \$50,000 rises steadily with weeks worked, from 0.6% of those who worked 1 to 13 weeks to 14.2% of those who worked 49 to 52 weeks. The average earnings for each group also reflect the rise in average annual earnings as the number of weeks worked per year increases.

The distributions in the lower panel of **Table 3.2** reflect the combined impact on earnings of increased work and full-time work effort. The changes seen here with increased weeks worked are similar to those observed for all workers. For example, the proportion with earnings under \$10,000 declines as the number of weeks worked increases, from 82% of

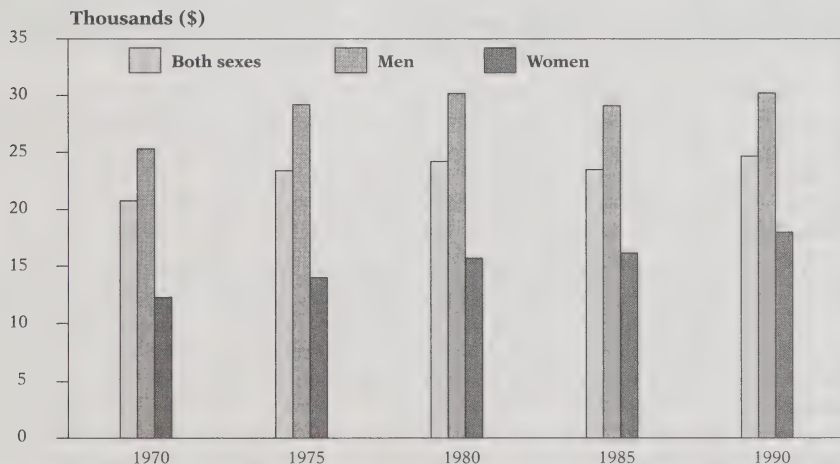
those who worked 1 to 13 weeks full time, to 25.5% of those who worked 27 to 39 weeks, to only 7% of full-year, full-time workers. By the same token, increased proportions are seen in the higher earnings groups with each successive group of weeks worked. As for all workers, there are proportionately few full-time workers earning \$50,000 or more in the weeks worked groups from 1 to 40 weeks (.8% of 1 to 13 weeks, 1.8% of 14 to 26 weeks and 3.2% of 27 to 39 weeks). There are much higher proportions of those earning \$50,000 or more among those who worked 40 to 48 weeks (10.3%) and among those who worked full-year, full-time (15.8%).

Chapter 4

Changes in Earnings: 1970 to 1990

There were substantial changes in the Canadian work force and its earnings from 1971 to 1991. Using data from the 1971, 1981, 1986 and 1991 Censuses, the changes in the number of working men and women and their average earnings can be put into historical perspective. For comparison, earnings data from earlier censuses have been expressed in constant (1990) dollars. In this chapter, the changes in the earnings of individuals in various regions will be described, followed by an examination of the changes in average earnings and the distribution of earners by sex and work activity.

Chart 4.1
Average Earnings in Constant (1990) Dollars by Sex, Selected Years



Note: For persons who worked in the reference year.

Sources: 1976 Survey of Consumer Finances; 1971, 1981, 1986 and 1991 Censuses of Canada.

Provinces and Territories

As shown in **Chart 4.1**, Canadian earnings, stated in real or constant (1990) dollars, rose on average by 15.6%, between 1970 and 1980, from \$20,970 to \$24,246. Earnings then declined by 2.9% between 1980 and 1985, to \$23,539 and then rose again by 5.0%, to \$24,716 in 1990. Thus, compared with real gains in earnings of 15.6% in the 1970s, average earnings grew by only 1.9% during the 1980s.

From the earnings data in **Table 4.1**, it is apparent that all regions experienced gains in real, or inflation-adjusted, earnings over the 1970s, albeit to different degrees. Average earnings increased by 15% to 23% in the Atlantic provinces, by 16.7% in Quebec, by 9.3% in Ontario and by 12% to 42% in the western provinces and territories. Saskatchewan registered the largest increase over the decade, partly due to the abnormally weak economic situation in the farm sector in 1970.

Changes in average earnings in the two five-year periods of the next decade reflect the impact of the 1981-82 recession and the subsequent recovery. The statistics in **Table 4.1** reveal that average earnings for all workers declined nationally between 1980 and 1985 and in all regions, with the exception of Nova Scotia, Ontario and the Northwest Territories. By 1990, overall average earnings more than recovered from this decline, increasing by 5% to \$24,716. However, not all provinces and territories shared in the recovery, nor did earnings in all regions return to 1980 levels. Saskatchewan and Alberta not only showed declines in average earnings between 1980 and 1985, but these two provinces were the only regions to register further declines in earnings over the 1985 to 1990 period.

This decline and recovery cycle over the two halves of the 1980s produced varied changes in earnings in the regions. Of the four provinces and the Northwest Territories, which registered increases in earnings over the decade, the Northwest Territories showed the largest gain over this 10-year period, up 15.5%, to \$27,692 in 1990. The remaining regions all registered declines in average earnings between 1980 and 1990, with Saskatchewan showing the largest drop, down by 12.1%, to \$20,179 in 1990.

The various changes in average earnings over the last two decades have resulted in some shifts in the ranking of provinces on the earnings ladder. In 1970, the Atlantic provinces occupied four of the bottom five positions. By 1990, their position was more or less the same, although in the intervening period they shifted positions somewhat within the lower ranks. The result, over the last two decades, has been a decline of two positions for Newfoundland and a gain of one position for New Brunswick, while Nova Scotia and Prince Edward Island have not changed rank. Between 1970 and 1980, Quebec dropped from fourth to fifth, and then from fifth to sixth between 1980 and 1985. In 1990, average earnings in Quebec remained sixth-highest in provincial ranking. Between 1970 and 1980, Ontario lost two positions, dropping from second to fourth. As one of the three regions to show an increase in average earnings between 1980 and 1985, Ontario reclaimed second spot in 1985 and retained that position in 1990. Average earnings were highest in the Yukon in 1970 and 1980, but by 1990 they had dropped to third highest. The Northwest Territories took over the top

spot with the highest average earnings in 1990, moving up five positions since 1980 as a result of consecutive increases in average earnings over the 1980 to 1985 and 1985 to 1990 periods and an increasing proportion of full-year, full-time workers. Of the western provinces, Manitoba remained at seventh place between 1970 and 1990. Saskatchewan, registering the largest gain in provincial average earnings between 1970 and 1980, jumped four positions on the earnings ladder. However, over the next five-year period, average earnings in Saskatchewan declined at over three times the national rate, resulting in a drop from seventh to eighth place. Between 1985 and 1990, average earnings fell again in Saskatchewan, placing the province in tenth spot. Alberta, registering the second largest increase in average earnings between 1970 and 1980, climbed from sixth to third spot. However, with consecutive declines in average earnings over the next two five-year periods, this province fell back to fifth spot in 1990. British Columbia had the third-highest earnings in 1970 and improved to second-highest by 1980. Registering an above-average decline in average earnings between 1980 and 1985 and a below-average increase in the next five-year period, resulted in British Columbia's drop to fourth position overall by 1990.

The changes in average earnings for full-year, full-time workers over the last two decades were similar, but of a different magnitude than those for all workers. Between 1970 and 1980, the earnings of full-year, full-time workers grew at an above-average rate in all provinces and territories except Ontario and the Yukon. However, the 1980s saw both gains and losses in average earnings across the regions. Ontario, the Atlantic provinces and the Northwest Territories were the only regions that registered increases in average earnings for full-year, full-time workers. Full-year, full-time workers in Quebec, all western provinces and the Yukon had lower average earnings in 1990 than they had in 1980.

Work Activity

As can be seen from the data in **Table 4.2**, some of the changes in the number of working men and women and their earnings over the last two decades were very substantial, especially for women. The changes, both in number of workers and in average earnings, have been summarized for part-time workers (1 to 52 weeks), those who worked 1 to 48 weeks, mostly full-time, and those who worked full year, full time (49 to 52 weeks).

The influx of women into the labour force over the last two decades has not only been spectacular but has resulted in increases in the number of working women which has outpaced the increase in the number of working men. Between 1970 and 1980, the number of working women grew by 1.8 million, or 56.2%, while the number of working men grew by 1.2 million, or 19.9%. For both sexes, the largest growth in absolute terms was in full-year, full-time workers.

Table 4.1
Average Earnings in Constant (1990) Dollars by Work Activity, Canada, Provinces and Territories, 1970, 1980, 1985 and 1990

Work activity in reference year	Average earnings (1990 dollars)				Percentage change from				Rank			
	1970	1980	1985	1990	1970-80	1980-85	1985-90	1980-90	1970	1980	1985	1990
Worked in reference year												
Canada	20,791	24,246	23,539	24,716	16.6	-2.9	5.0	1.9	-	-	-	-
Newfoundland	16,526	19,500	17,370	18,411	18.0	-10.9	6.0	-5.6	9	10	11	11
Prince Edward Island	13,590	16,738	16,346	17,993	23.2	-2.3	10.1	7.5	12	12	12	12
Nova Scotia	17,521	20,247	20,635	21,411	15.6	1.9	3.8	5.7	8	9	9	8
New Brunswick	16,209	19,495	18,919	20,193	20.3	-3.0	6.7	3.6	10	11	10	9
Quebec	20,809	24,277	23,198	23,848	16.7	-4.4	2.8	-1.8	4	5	6	6
Ontario	22,258	24,337	24,726	26,882	9.3	1.6	8.7	10.5	2	4	2	2
Manitoba	18,371	21,587	21,495	21,547	17.5	-0.4	0.2	-0.2	7	8	7	7
Saskatchewan	16,122	22,962	20,951	20,179	42.4	-8.8	-3.7	-12.1	11	7	8	10
Alberta	20,307	26,457	24,523	24,361	30.3	-7.3	-0.7	-7.9	6	3	3	5
British Columbia	21,844	26,499	24,163	25,153	21.3	-8.8	4.1	-5.1	3	2	4	4
Yukon	24,933	27,870	23,646	26,072	11.8	-15.2	10.3	-6.5	1	1	5	3
Northwest Territories	20,550	23,981	25,384	27,692	16.7	5.9	9.1	15.5	5	6	1	1

Table 4.1
Average Earnings in Constant (1990) Dollars by Work Activity, Canada, Provinces and Territories, 1970, 1980, 1985
and 1990 (concluded)

Work activity in reference year	Average earnings (1990 dollars)				Percentage change from				Rank			
	1970	1980	1985	1990	1970-80	1980-85	1985-90	1980-90	1970	1980	1985	1990
Worked full year, full time in reference year												
Canada	28,362	33,614	33,337	33,714	18.5	-0.8	1.1	0.3	-	-	-	-
Newfoundland	24,009	30,445	30,457	30,993	26.8	0.0	1.8	1.8	9	8	8	7
Prince Edward Island	20,510	26,745	27,417	28,617	30.4	2.5	4.4	7.0	12	12	12	11
Nova Scotia	24,836	29,468	30,747	30,841	18.7	4.3	0.3	4.7	8	10	7	8
New Brunswick	23,461	29,314	29,846	30,274	24.9	1.8	1.4	3.3	10	11	11	9
Quebec	27,161	32,616	31,546	31,705	20.1	-3.3	0.5	-2.8	6	6	6	6
Ontario	30,540	33,746	34,497	36,031	10.5	2.2	4.4	6.8	4	5	5	3
Manitoba	25,350	30,285	30,396	29,607	19.5	0.4	-2.6	-2.2	7	9	9	10
Saskatchewan	21,763	31,938	30,004	27,868	46.8	-6.1	-7.1	-12.7	11	7	10	12
Alberta	27,782	36,666	35,238	33,325	32.0	-3.9	-5.4	-9.1	5	4	4	5
British Columbia	31,096	37,265	35,429	34,886	19.8	-4.9	-1.5	-6.4	3	3	3	4
Yukon	34,863	39,960	36,668	37,287	14.6	-8.2	1.7	-6.7	1	1	2	2
Northwest Territories	31,535	37,933	38,857	42,268	20.3	2.4	8.8	11.4	2	2	1	1

Source: 1991 Census of Canada.

Table 4.2

Number of Earners and Average Earnings in Constant (1990) Dollars by Sex and Work Activity, 1970, 1980, 1985 and 1990

Sex and work activity(1)	Number (000s)				Percentage change from(2)			
	1970	1980	1985	1990	1970-80	1980-85	1985-90	1980-90
Men								
1-52 weeks-PT	674	771	909	927	14.3	18.0	1.9	20.2
1-48 weeks-FT	1,800	2,256	2,124	2,280	25.3	-5.8	7.4	1.1
49-52 weeks-FT	3,536	4,181	4,249	4,700	18.2	1.6	10.6	12.4
Total	6,011	7,208	7,283	7,907	19.9	1.0	8.6	9.7
Women								
1-52 weeks-PT	918	1,546	1,799	1,920	68.4	16.3	6.8	24.2
1-48 weeks-FT	1,050	1,488	1,441	1,625	41.8	-3.2	12.7	9.2
49-52 weeks-FT	1,274	2,031	2,332	3,019	59.4	14.8	29.5	48.6
Total	3,242	5,066	5,572	6,564	56.2	10.0	17.8	29.6
Sex and work activity(1)	Average earnings (1990 dollars)				Percentage change from			
	1970	1980	1985	1990	1970-80	1980-85	1985-90	1980-90
Men								
1-52 weeks-PT	9,007	9,930	9,427	8,482	10.2	-5.1	-10.0	-14.6
1-48 weeks-FT	18,958	22,464	19,919	21,800	18.5	-11.3	9.4	-3.0
49-52 weeks-FT	31,730	38,128	37,972	38,648	20.2	-0.4	1.8	1.4
Total	25,355	30,210	29,142	30,253	19.1	-3.5	3.8	0.1
Women								
1-52 weeks-PT	5,849	7,901	8,379	8,913	35.1	6.0	6.4	12.8
1-48 weeks-FT	9,889	12,246	11,963	13,998	23.8	-2.3	17.0	14.3
49-52 weeks-FT	19,015	24,321	24,890	26,033	27.9	2.3	4.6	7.0
Total	12,331	15,761	16,216	18,046	27.8	2.9	11.3	14.5

(1) PT = Part time, FT = Full time.

(2) Calculated from unrounded data.

Note: Estimates may not add to total due to rounding.

Source: 1991 Census of Canada.

Over the first half of the 1980s, reflecting the impact of the 1981-82 recession, the growth in the number of earners – especially for men – abated somewhat. And for both sexes, decreases were experienced in the number of full-time workers who worked part year (1 to 48 weeks). Overall, the number of working men rose by only 1%, while the number of working women increased by 10%. For women, the largest increases, in absolute terms, were in full-year, full-time workers, although substantial increases in the number of part-time workers were also seen. For men, the largest increases occurred in the number of part-time workers, while the number of full-year, full-time workers grew only marginally.

The growth over the last half of the 1980s was characterized by renewed substantial increases in the number of men and women working full year, full time. The numbers working part time and 1 to 48 weeks full time also grew, but in much smaller terms. In fact, of the 1.6 million new earners in 1990, 1.1 million were working full year, full time.

These changes resulted in a marked increase in the proportion of women in the working population, from 35% in 1970 to 45.4% in 1990. Further, the proportion of women in the higher-paying full-year, full-time category rose from 26.5% in 1970 to 39.1% in 1990.

Not only did the increase in the number of women in the workplace over the last two decades outpace that of men, so did the increases in their average earnings. In real terms, women's earnings rose by 27.8% between 1970 and 1980, followed by increases of 2.9% between 1980 and 1985 and 11.3% between 1985 and 1990, to reach \$18,046. And although men also enjoyed a large increase in earnings over the 1970s, up 19.1% on average, their incomes declined by 3.5% between 1980 and 1985. With a 3.8% increase in average earnings over the last half of the 1980s, men's earnings reached \$30,253 in 1990, about the same level as in 1980⁴.

The changes in the average earnings of part-time workers over the last two decades, although exhibiting a similar pattern to the overall changes for women, differed somewhat for men. In 1980, men working part time had earnings, on average, about 10% higher than the 1970 level. Their earnings had dropped by 5.1% by 1985, to \$9,427, then fell a further 10% between 1985 and 1990 to \$8,482 in 1990. An examination of the distribution and average earnings of this group by weeks worked over the 1980s (not shown) revealed that there was little change in the distribution of male part-time workers by number of weeks worked, but that over the two five-year time periods average earnings declined in most of the groups of weeks worked.

A similar examination of part-time work by weeks worked for women revealed several interesting aspects. First, increases in average earnings for women working part time were seen in all of the weeks worked categories over the time periods examined. Secondly, the changes in their earnings over the last two decades can be attributed, in part, to the

⁴ Data from the annual Survey of Consumer Finances show that real earnings for men declined in both 1991 and 1992 and were 3.3% lower in 1992 than in 1990. Real earnings for women remained unchanged in 1991, but grew in 1992 and were 3.0% higher than in 1990. The Survey data also revealed that the real average earnings in 1992 of men who worked full year, full time were still at about the same level as in 1980. The average earnings in 1992 of women who worked full year, full time, continued their upward trend, rising in both 1991 (2.0%) and in 1992 (4.1%).

substantial movement from part-year work (1 to 48 weeks) with lower average earnings, to full-year work, that is 49 to 52 weeks, with higher average earnings. For example, in 1970, 20.4% of women working part time worked the whole year, but by 1990, this proportion had grown to 37.2%.

Both men and women in the 1-to-48 weeks, full-time category experienced large increases in average earnings over the 1970s (18.5% for men and 23.8% for women). Similarly, they also experienced decreases in average earnings over the first half of the 1980s. However, the drop was more substantial for men (11.3%) than for women (2.3%). From data not shown, it was determined that this decrease for men is partly attributable to the combination of a larger-than-average decline (17.9%) in the number of men working 40 to 48 weeks full time, combined with their decline in average earnings of 5.8%.

It is the changes among the groups of men and women working full year, full time that can have the greatest impact on the overall change. This is because they represent over one-half of all workers and have, by far, larger earnings than any other group. Expressed in real (1990) dollars, average employment income of men working full year, full time was \$31,730 in 1970, compared with \$19,015 for women. By 1980, men's earnings had jumped 20.2%, to \$38,128, while women's earnings showed an even larger gain of 27.9%, to \$24,321. Between 1980 and 1985, men's average earnings declined slightly, by 0.4%, to \$37,972 and over the last half of the 1980s this group registered an increase in average earnings of 1.8%, climbing to \$38,648. On the other hand, women working full year, full time, registered increases in average earnings over both halves of the decade; rising 2.3% between 1980 and 1985 and by another 4.6% between 1985 and 1990, to reach \$26,033⁵.

One result of the varying changes over the decades has been a narrowing of the gap between the earnings of men and women working full year, full time. This is reflected in increases in the ratio of women's to men's earnings; from 59.9% in 1970 to 63.8% in 1980 and 67.4% in 1990⁶.

Distributions by Sex

Table 4.3 provides the distributions of earners by sex and size of employment income in 1970, 1980, 1985 and 1990. The distributions of all earners will be examined first, followed by those who worked full year, full time.

⁵ Ibid.

⁶ The 1993 Survey of Consumer Finances indicated the continuation of this trend. The female to male earnings ratio for full-year, full-time workers increased to 69.6% in 1991 and to 71.8% in 1992.

Table 4.3

Distribution of Earners by Sex, Work Activity and Employment Income Groups in Constant (1990) Dollars, 1970, 1980, 1985 and 1990

Work activity and employment income group (1990 dollars)	Men				Women			
	1970	1980	1985	1990	1970	1980	1985	1990
Worked in reference year	%				%			
Less than \$2,000 (1)	6.0	5.1	6.5	5.7	14.5	11.2	11.5	8.8
\$ 2,000 – \$ 4,999	7.0	6.3	7.6	6.4	15.2	12.8	13.4	11.1
\$ 5,000 – \$ 9,999	9.0	8.3	9.3	8.8	17.6	15.9	16.1	15.1
\$ 10,000 – \$14,999	8.7	7.5	8.6	8.0	17.5	13.8	13.9	13.4
\$ 15,000 – \$19,999	11.7	8.2	8.1	8.0	16.1	14.0	11.8	11.8
\$ 20,000 – \$24,999	12.2	9.5	9.2	9.1	9.1	12.5	11.9	12.2
\$ 25,000 – \$29,999	12.9	9.0	8.0	9.0	5.0	7.1	7.3	9.0
\$ 30,000 – \$34,999	11.1	10.0	9.1	9.7	2.6	4.7	5.2	6.5
\$ 35,000 – \$39,999	7.0	10.1	8.8	7.8	1.1	3.4	3.7	4.3
\$ 40,000 – \$49,999	6.8	12.6	12.0	12.0	0.9	2.9	3.3	4.6
\$ 50,000 – \$59,999	3.2	6.0	5.7	6.9	0.3	0.9	1.1	1.8
\$ 60,000 – \$74,999	1.9	4.1	4.0	4.5	0.1	0.4	0.5	0.9
\$ 75,000 – \$99,999	1.3	1.9	1.7	2.1	0.1	0.1	0.2	0.3
\$100,000 and over	1.2	1.5	1.4	1.9	0.1	0.1	0.1	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number (000's)	6,011	7,208	7,283	7,907	3,242	5,066	5,572	6,564
Average employment income (\$)	25,355	30,210	29,142	30,253	12,331	15,761	16,216	18,046
Median employment income (\$)	23,316	27,699	25,924	26,818	10,923	13,814	13,374	15,524
Worked full year, full time in reference year								
Less than \$2,000 (1)	1.8	1.3	1.7	1.7	1.4	1.2	1.7	1.9
\$ 2,000 – \$ 4,999	1.7	1.2	1.3	1.3	2.3	1.6	1.8	1.8
\$ 5,000 – \$ 9,999	3.4	2.0	2.8	2.6	7.3	4.0	5.8	5.3
\$ 10,000 – \$14,999	5.6	3.8	5.4	4.7	22.5	11.2	12.6	10.8
\$ 15,000 – \$19,999	11.0	6.7	7.3	6.8	28.9	20.6	16.3	14.0
\$ 20,000 – \$24,999	14.2	10.2	10.3	9.6	18.0	22.7	20.5	18.4
\$ 25,000 – \$29,999	16.8	11.0	10.1	10.8	9.9	13.5	13.6	14.9
\$ 30,000 – \$34,999	15.2	13.2	12.3	12.6	5.0	9.3	10.0	11.1
\$ 35,000 – \$39,999	9.9	13.8	12.5	10.6	2.0	6.8	7.4	7.6
\$ 40,000 – \$49,999	9.7	17.8	17.5	17.0	1.7	6.0	6.7	8.4
\$ 50,000 – \$59,999	4.6	8.7	8.5	10.0	0.6	1.9	2.3	3.4
\$ 60,000 – \$74,999	2.7	5.7	6.0	6.6	0.2	0.7	0.9	1.5
\$ 75,000 – \$99,999	1.8	2.6	2.5	3.1	0.1	0.2	0.3	0.6
\$100,000 and over	1.5	1.9	2.0	2.6	0.1	0.2	0.2	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number (000's)	3,536	4,181	4,249	4,700	1,274	2,031	2,332	3,019
Average employment income (\$)	31,730	38,128	37,972	38,648	19,015	24,321	24,890	26,033
Median employment income (\$)	28,301	35,085	34,597	34,900	17,695	22,473	23,213	24,409

(1) Includes loss.

Note: Estimates may not add to total due to rounding.

Source: 1991 Census of Canada.

All Workers

Between 1970 and 1980, the earnings distributions of all workers shifted upwards. Compared with 21% in 1970, 36% of men had earnings of \$35,000 or more in 1980. Similarly, the proportion of women with earnings of \$20,000 or more increased from 19% to 32% over the 1970s. As a result of these changes, median earnings⁷ of men increased by 18.8% and those of women by 26.5% in that decade.

The recession of the early 1980s had a depressing effect on the earnings of both men and women. The proportion of men with earnings under \$15,000 was 5 percentage points higher in 1985 than in 1980. Although the proportions of men in all earnings groups over \$15,000 declined, the proportion of men between \$25,000 and \$40,000 declined the most. The impact of these changes is reflected in the 6.4% decline in the median earnings of men over this period. Similarly, the proportion of women in earnings groups under \$15,000 increased between 1980 and 1985, while their proportions in the two groups between \$15,000 and \$25,000 declined. There were, however, marginal increases in their proportions in the earnings groups over \$25,000. These changes in the earnings distribution of women were not entirely offsetting as median income declined, but less so than in the case of men, by 3.2%. Thus, the impact of the recession was less severe on the earnings of women than on the earnings of men.

With the economic recovery in the mid and later years of the 1980s a large number of men and women joined the work force, most of whom were full-year, full-time workers. The impact of this increase was seen in the distribution of all working men as the proportions in earnings groups below \$25,000 declined, amounting cumulatively to just over 3 percentage points. While there were small increases in the proportions of men in the earnings groups between \$25,000 and \$50,000, their proportions grew by 3 percentage points in the earnings groups over \$50,000. These shifts resulted in a 3.4% increase in men's median earnings. There was also large growth between 1985 and 1990 in the number of working women, especially in those working full year, full time. These changes translated into a substantial decline (6 percentage points) in the proportion of women in earnings groups under \$15,000. But unlike men, where the largest growth was in earnings groups over \$50,000, the proportions of women in earnings groups between \$25,000 and \$35,000 showed the largest growth. As a result, the median earnings of women rose by 16.1% between 1985 and 1990.

⁷ Generally, the changes in overall earnings are discussed in terms of average earnings. Median earnings is the mid-point, or middle value, in a distribution of earners by size of earnings. As this section deals with changes in the distribution of earners, median earnings was chosen as a more appropriate reference point for the analysis. Median earnings are almost always slightly lower than average earnings.

Full-year, Full-time Workers

As for all workers, there was a large upward shift in the earnings distribution of full-year, full-time workers between 1970 and 1980. Men's median earnings increased by 24% and women's by 27%. Proportionately more men had earnings over \$35,000 in 1980; 5 out of 10 men had earnings of at least \$35,000 compared with 3 out of 10 in 1970. In the case of women working full year, full time, 61% had earnings of \$20,000 or more in 1980, compared with 38% a decade earlier.

Between 1980 and 1985, the earnings distribution of full-year, full-time working men saw minor changes, most of them downward. This was reflected by the 1.4% decline in their median earnings. However, the earnings distribution of women working full year, full time over this period saw more substantial changes than those of men, with large increases and decreases in certain earnings groups. Their proportions in earnings groups between \$15,000 and \$25,000 declined by over 6 percentage points. This decline was not entirely compensated by increases in the lower earnings groups. Although the proportion of women in earnings groups under \$15,000 did increase by nearly 4 percentage points, their proportions in most of the groups over \$25,000 also increased, albeit marginally. The impact of these changes in the earnings distribution of women resulted in a 3.3% increase in women's median earnings between 1980 and 1985.

Between 1985 and 1990, changes in the earnings distributions of full-year, full-time working men were somewhat mixed. Their proportions declined in the earnings groups from \$5,000 to \$25,000, increased in the two middle groups between \$25,000 and \$35,000, and declined in the next two groups between \$35,000 and \$50,000. The most significant change from 1985 was an increase of 3 percentage points in the proportion of men with earnings over \$50,000. These mixed changes in the distribution were almost offsetting, as men's median earnings increased by only 0.9%.

The changes in the distribution of earnings for women working full year, full time, as was the case in the first half of the 1980s, were also more dramatic than for men over the last half of the decade. The proportion of women in the earnings groups between \$5,000 and \$25,000 declined by nearly 7 percentage points. All earnings groups above \$25,000 had increased proportions, most notably the groups with earnings over \$50,000, which increased by 2 percentage points. This movement to earnings groups over \$25,000 resulted in an increase of 5.2% in median earnings of women working full year, full time.

Conclusion

Employment income, or earnings, was by far the largest component of the average total income of Canadians in 1990, accounting for 81% of men's total income and 72% of women's total income.

Increasing with age, men's average earnings peaked in the 45-to-49 year age group, while women's peaked in the 40-to-44 year age group and declined thereafter. However, men's earnings were higher in all age groups and peaked at a much higher level, \$41,441, compared with \$22,733 for women.

For full-year, full-time workers, earnings of married men and women differ the most and those of single men and women the least. Furthermore, the differences in earnings between married men and women increase with age, while those between single men and women decline to insignificant.

In 1990, the average earnings of university graduates were over twice those of individuals with less than a secondary school certificate. And among full-year, full-time workers, those with degrees in Health professions, sciences and technologies had the highest earnings, at \$88,174 for men and \$45,318 for women.

Average earnings of men in 1990 were higher than women's in all major occupation groups, although women's position improved when comparisons were restricted to full-year, full-time workers. Men were not overly concentrated in any particular occupation group, but nearly one-half of working women were in two occupation groups, Clerical and related and Service occupations, with below average earnings. Occupations in Medicine and health were the highest paying for men in 1990, while women in Managerial, administrative and related occupations were the highest paid.

There were considerable differences in the average earnings across the various regions in 1990. Prince Edward Island had the lowest average earnings at \$17,993, followed by Newfoundland at \$18,411. The highest average earnings were reported for the Northwest Territories at \$27,692, followed by Ontario at \$26,882.

Since 1970, average earnings of men and women, after adjustment for inflation, have increased at different rates. Men's average earnings grew by 19% over the 1970s, reaching \$30,210 by 1980. After declining by almost 4% over the next five years, men's earnings increased by a similar margin during the second half of the 1980s to close out the decade at about the same level, \$30,253. Women's average earnings grew much faster during the 1970s, by 28%, to \$15,761 in 1980. And unlike men, women's earnings increased during both halves of the 1980s, by 3% and 11% respectively, to \$18,046 in 1990. As a result, the ratio of average earnings of all female workers to those of males rose from 48.6% in 1970 to 59.7% in 1990. Between 1970 and 1990, the proportion of women among full-year, full-time workers increased from 26.5% to 39.1%. The earnings of women working full year, full time have also risen faster than their male counterparts, resulting in an increase in the ratio of their earnings from 59.9% in 1970 to 67.4% in 1990.

Definitions

- **Data**

The data used in this study are from the Censuses of Canada taken in 1971, 1981, 1986 and 1991 which collected detailed information on the income of individuals. Unlike the demographic and other characteristics that relate to status (e.g. age) at the time of the census, data on income and work activity relate to the calendar year prior to census day. For the most part, data in the tables and charts in this study are for persons who worked in the reference year and reported earnings. Data referred to from the *Survey of Consumer Finances* are available from *Earnings of Men and Women*, Catalogue No. 13-217, Annual.

- **Wages and Salaries**

Refers to gross wages and salaries from all jobs before deductions for such items as income tax, pensions and unemployment insurance.

- **Net Non-farm Self-employment Income**

Refers to net income (gross receipts minus expenses of operation) from the respondent's non-farm unincorporated business or professional practice, either on own account or in partnership.

- **Net Farm Self-employment Income**

Refers to net income (gross receipts from farm sales minus expenses of operation) from the operation of a farm, either on own account or in partnership.

- **Earnings or Employment Income**

Refers to total income received by an individual from wages and salaries, net income from unincorporated non-farm business and/or professional practice and net farm self-employment income.

Definitions (continued)

- **Total Income**

Refers to the sum of amounts received by an individual from employment sources, transfer payments from all levels of government (such as Old Age Security Pension, provincial income supplements to the elderly and social welfare payments), investment income, retirement pension, or money income received from any other source (such as alimony or royalty payments) in the reference year.

- **Average Earnings**

Refers to the weighted mean earnings of all individuals who reported employment income (positive or negative) in the reference year.

- **Median Earnings**

Refers to the amount that divides the employment income size distribution into two halves. Median values have been calculated from more detailed distributions than shown in this study.

- **Constant Dollars**

An increase in current income generally does not amount to an equivalent increase in purchasing power because of changes in the prices of goods and services. To render historical data in constant dollars, earnings estimates for years prior to 1990 were converted into 1990 dollars by adjusting for the changes in the Consumer Price Index between the compared time periods.

- **Work Activity**

Refers to the number of weeks worked and whether those weeks were full-time (30 hours or more per week) or part-time. Persons who worked 49 to 52 weeks, full time, in the reference year are designated as full-year, full-time workers. Most of the data in this study refer to all workers and full-year, full-time workers.

- **Occupation**

Refers to the kind of work a person was doing during the reference week, as determined by the kind of work and the description of the most important duties in the job.

- **Highest Level of Schooling**

Refers to the highest grade or year of elementary or secondary school attended, or the highest year of university or other non-university completed.

- **Major Field of Study**

Refers to the predominant discipline or area of learning or training of a person's highest post-secondary degree, certificate or diploma. The classification structure used consists of 10 major groups.

Definitions (concluded)

- **Marital Status**

Refers to the conjugal status of a person. The categories used in this study are single (never married), married (including persons living in common-law), separated, divorced and widowed.

For detailed definitions, see Statistics Canada, *1991 Census Dictionary* (Catalogue No. 92-301E). Also see the report in the 1991 Census Technical Report Series, *Income*, Catalogue No. 92-340E, for a brief description of the different aspects of income, such as collection, processing and data quality.

Earnings of Canadians

Statistics Canada

During the mid 1980s Canadians suffered through one recession and, at the taking of the most recent census, were in the midst of another. This study provides insights into the picture of employment in Canada, tallying earnings by sex, age group, marital status, education, major field of study, and selected occupations. The differences between male and female earnings are reported, including changes since 1985. The relationship between work activity and earning is examined. The report concludes with a look across provinces at changes in overall earnings from 1970 to 1990.

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